

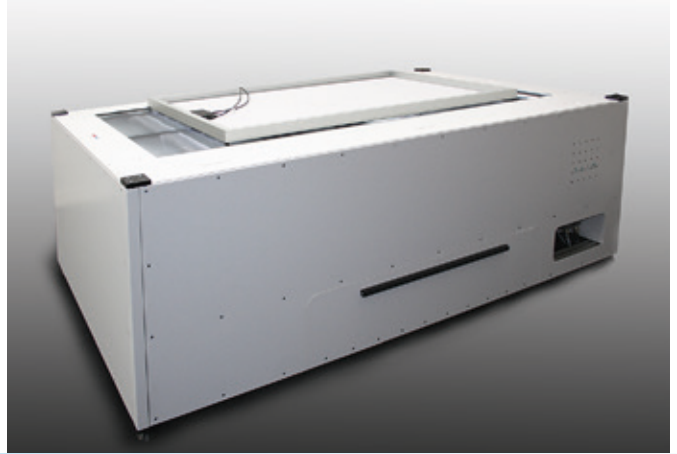


# cetisPV- IUCT-Q

Class AAA flasher for  
IV measurement of solar modules  
in production lines



cetisPV product line



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The **cetisPV-IUCT-Q** is a ready-to-operate high-precision pulsed xenon flasher solution for IV measurements of photovoltaic modules.

**Integration** – The economic footprint combined with a low profile allows module examination at standard conveyor level height. Therefore, it can easily be integrated into new or existing production lines and R&D facilities. As solar modules are tested sunny-side down – matching the typical orientation in production lines – complex module positioning by robots and large dark rooms become dispensable.

**Sustainability** – The programmable pulsed solar simulator provides a highly stable intensity over long flash times from a single light source. Combined with the h.a.l.m. IV curve tracer and the h.a.l.m. advanced hysteresis feature to measure high-capacitance modules, this system is designed to match the demands of current and up-coming solar cell technologies.

**Flexibility** – The system is controlled by the versatile **PVControl** software package with statistic functions, hysteresis measurements, and flexible database storage options. Moreover interfaces for most common MES solutions, as well as barcode reading and label printing options are available.

## Technical specifications

<b>Cycle time</b>	20 s
<b>Flash duration</b>	up to 60 ms
<b>Flash profiles</b>	single, double, triple level, ramp
<b>Repeatability (standard deviation)</b>	Isc and Voc < ±0.1% / Pmpp and FF < ±0.15%
<b>Measurement resolution</b>	< 0.004% FSR (3 synchronous 16-bit channels for voltage, current and irradiance)
<b>Measurement accuracy</b>	< 0.05% FSR for current and voltage measurements
<b>Voltage measurement ranges</b>	-16 to +12.5/+25/+50/+125/+250V ±4/ ±8/ ±20/ ±32/ ±56/ ±80/ ±140/ ±180V (with optional <b>cetisPV-EL3-M</b> )
<b>Current measurement ranges</b>	+20/+10/+4/+2/+1/+0.5/+0.2/+0.1 A ±20/ ±10/ ±4/ ±2A/ ±160/ ±80/ ±32/ ±16 mA (with optional <b>cetisPV-EL3-M</b> )
<b>Standard illumination area</b>	2,000 mm x 1,000 mm
<b>Dimensions of flasher unit</b>	2,600 mm x 1,500 mm x 900 mm (L x W x H)
<b>Spectral match*</b>	0.9 – 1.2 (class A 0.75 – 1.25)
<b>Non-uniformity of irradiance*</b>	< 2% (class A ≤ 2%)
<b>Short-term instability of irradiance*</b>	< 0.05% (class A ≤ 0.5%)
<b>Long-term instability of irradiance*</b>	< 0.5% (class A ≤ 2%)
<b>Lamp lifetime (guaranteed/typical)</b>	100,000/300,000 flashes

\*IEC 60904-9 Ed. 2      Technical data are subject to change without notice.